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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,488	01/23/2004	Marc Huard	0579-1033	4926

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EXAMINER

GODFREY, KEITH JOSEPH

ART UNIT	PAPER NUMBER
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1732

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08/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/762,488	Applicant(s) HUARD ET AL.	
	Examiner Keith J. Godfrey	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/08/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Terminal Disclaimer

The terminal disclaimer filed on 05/08/2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patent granted on Application Number 10/762353 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hettinga (US 5902525) in view of Su et al. (US 6099763).

Hettinga ('525) teaches the basic claimed process of an injection mold filling method including: a preliminary rise in injection flow rate from a zero flow rate to a pre-determined flow rate (column 6, lines 15-18 and column 8, lines 16-21), a low maintained injection flow rate during the first fill portion of the mold (column 8, lines 16-21 and column 8, lines 32-35), a main rise in injection flow rate (column 8, lines 36-39), an maintained full injection flow rate (column 8, lines 43-47), a main injection flow rate reduction (column 8, lines 57-63), low injection flow rate end of filling (column 8, lines

57-63), and a final injection flow rate reduction to a zero flow rate (column 9, lines 35-38).

Hettinga (US 5902525) does not expressly disclose injection molding optical components and polymerizing in the mold.

Su et al. (US 6099763) teaches a method of molding a lens (optical component) using a two piece mold cavity, filling (injecting) the molding cavity from the bottom with a liquid monomer composition, and curing the liquid composition in the mold (abstract and col. 5, lines 24-40 and Fig. 2, element 38). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the optical elements as taught by Su et al. (US 6099763) using the method of Hettinga ('525), because Hettinga ('525) teaches an efficient process that reduces spraying/splashing, hence providing for an improved product. Because both of the references are concerned with a similar technical field, namely that of a process for filling a device, one would have a reasonable expectation of success from the combination.

Regarding claims 14, 18-21, and 24-27, although Hettinga ('525) teaches the individual process steps, Hettinga ('525) does not teach the specific claimed fill rates or material height, but these are result effective variables. Hettinga (US 5902525) teaches an incomplete filling variable, leaving the material height and flow rates as result-effective variables. Hettinga ('525) specifically teaches that the actual mold fill rates are determined based on mold flow analysis of a particular mold (column 8, lines 52-56). In *re Antoine*, 559 F. 2d 618, 195 USPQ6 (CCPA 1977) (See MPEP 2144.05). Therefore, it would have been obvious to one of ordinary skill in the art to use routine

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experimentation to determine an optimum flow rate and material height in the mold as claimed because Hettinga ('525) specifically teaches that the mold fill rate and material height are result-effective variables depending on the type of mold and molded material.

Regarding claims 16-17, Hettinga ('525) teaches hardening (polymerization) of the material (column 10, lines 11-12).

Regarding claims 22 and 28, Hettinga ('525) teaches the basic claimed process of an injection mold filling method including: a preliminary rise in injection flow rate from a zero flow rate to a pre-determined flow rate (column 6, lines 15-18 and column 8, lines 16-21), a low maintained injection flow rate during the first fill portion of the mold (column 8, lines 16-21 and column 8, lines 32-35), a main rise in injection flow rate (column 8, lines 36-39), an maintained full injection flow rate (column 8, lines 43-47), a main injection flow rate reduction (column 8, lines 57-63), low injection flow rate end of filling (column 8, lines 57-63), and a final injection flow rate reduction to a zero flow rate (column 9, lines 35-38).

Regarding claims 23 and 29, Hettinga ('525) teaches that the fill rate is a function of time (See fig. 8 and column 6, lines 49-51). Although Hettinga ('525) does not teach a specific fill time, Hettinga ('525) teaches that the fill rate depends on the mold cavity shape and molding material (paragraph 0088). Hence it is submitted that the fill time will also depend on the mold cavity shape and molding material. As such, it is submitted that the fill time is a result-effective variable. In re Antoine, 559 F. 2d 618, 195 USPQ6 (CCPA 1977) (See MPEP 2144.05). Therefore, it would have been

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obvious to one of ordinary skill in the art at the time the invention was made to use routine experimentation to determine an optimum fill time in the process of Hettinga ('525) in view of Su et al. (US 6099763) because Hettinga ('525) specifically teaches that the fill rate, depends on the fill time which further depends in the mold cavity shape and molding material, and as such teaching that the fill time is a result-effective variable.

Regarding claim 15, Hettinga (US 5902525) does not expressly teach introducing the material through an opening in the lower cavity.

Su et al. (US 6099763) teaches a method of making an organic glass lens using a front and rear mold cavity, filling the molding cavity with a needle into the bore of a gasket at the bottom of the mold with a liquid monomer composition, and curing the liquid (abstract and col. 5, lines 24-40 and Fig. 2, element 38). Therefore it would have been obvious to one of ordinary skill in the art to use a vertical filling mold as taught by Su et al. (US 6099763) in the process of Hettinga ('525) because of known advantages such as reduced defects, hence providing for an improved product. Because both of the references are concerned with a similar technical field, namely that of methods of molding an ophthalmic lens, one would have a reasonable expectation of success from the combination.

Response to Arguments

Applicant's arguments filed 05/08/2007 have been fully considered but they are not persuasive.

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Applicant contends that the technical problems of filling a mold with an organic material are totally different than the technical problems when filling a mold with a thermoplastic material. This is not found persuasive because it is well known that many thermoplastics used for making optical lenses such as acrylics and urethanes are in fact organic materials.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith J. Godfrey whose telephone number is 571-272-6391. The examiner can normally be reached on 8:00-5:00 Mon-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina A. Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

kjg


CHRISTINA JOHNSON
SUPERVISORY PATENT EXAMINER